

**UNITED STATES DEPARTMENT OF AGRICULTURE  
NATURAL RESOURCES CONSERVATION SERVICE  
STUDY PLAN**

<b>Study ID code</b>	CAPMC-T-0425-RA	
<b>Title</b>	Red Bluff rangeland seeding establishment trial	
<b>National Project No.</b>	Rangeland 1.1	
<b>Study Type</b>	AE	
<b>Study status</b>	Active	
<b>Location</b>	Red Bluff	
<b>Study Leaders</b>	Larry Branham, red Bluff FO and David Dyer, CAPMC	
<b>Duration</b>	2002 - 2008	
<b>Cooperators</b>	NRCS area and field offices, Galper ranch, UC Coop. Ex., RCD	
<b>Land Use</b>	Rangeland	
<b>Vegetative Practices</b>	Primary	550 Range planting
	Secondary	512 Pasture and hay planting
<b>Resource concerns</b>	<u>Resource</u>	<u>Consideration/Problem</u>
	Animals	Grazing land conservation
	Soil	Carbon sequestration
	Plants	Invasive species
<b>Long Range Plan</b>	Study falls under Section IV, Part 1 and 4 of the CA PM LRP	
<b>Description</b>	Determine best cultivar and establishment methods for range plantings in the Red Bluff area and update the vegetative guide for use in farm bill programs.	
<b>Status of Knowledge</b>	Improved plant materials are in limited existence for the stated conservation practices and high performing both native and introduced species are needed. Current establishment methods have limited effectiveness and new methods and timing must be studied.	
<b>Experimental Design</b>	RCB Design, three replications	

<b>Treatment 1</b>	Title: Tilled, fall seeded Description: Test two species for adaptability and performance in the Red Bluff area, 1/2 plot has fertilizer
<b>Treatment 2</b>	Title: No-tilled, fall seeded Description: Test two species, 1/2 plot has fertilizer
<b>Treatment 3</b>	Title: Tilled, winter seeded Description: Test two species, 1/2 plot has fertilizer
<b>Treatment 4</b>	Title: No-till, winter seeded Description: Test two species, 1/2 plot has fertilizer
<b>Materials and Methods</b>	Samples of seed assembled from PMC collections. Seed will be assembled in 2004. A total of 4 acres will be seeded to all plots. 25 PLS per sq. foot, weed control as needed, evaluate plots for vigor, stand establishment, height, forage, etc. Plant counts will be taken. No-till drill used for planting. Round-up will be applied before planting to kill annual grasses and weeds. Additional pre-emergent and post-emergent herbicides will be applied for annual grass and weed control. 'Berber' Orchardgrass and 'Perla' Kulegrass are tested fall and winter seeded, tilled and no-tilled and with and without fertilizer (triple 15 NPK plus ash).
<b>Final Evaluations</b>	After initial evaluations, continue to evaluate for stand persistence and weed control
<b>Technology Transfer Products</b>	Revise FOTG standards, TechNote
<b>Literature Cited</b>	There is a need for high performance adapted rangeland species and establish methods for use in the range planting conservation practice in the Red Bluff area. Successful conversion from an annual grass weed systems to a perennial grass system with few weeds has proven to be difficult and new establishment methods are needed.
<b>Keywords</b>	Rangeland, establishment methods, native grass
<b>Review by:</b> <b>Approvals:</b>	CA. State Plant Materials Committee As per approval of CAPMC Business Plan